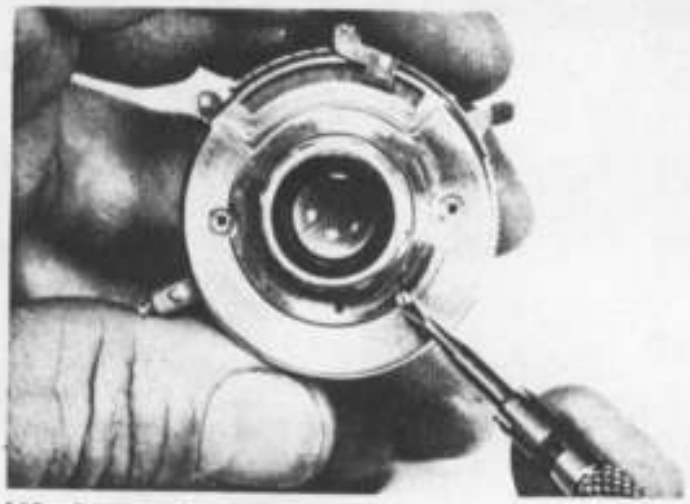
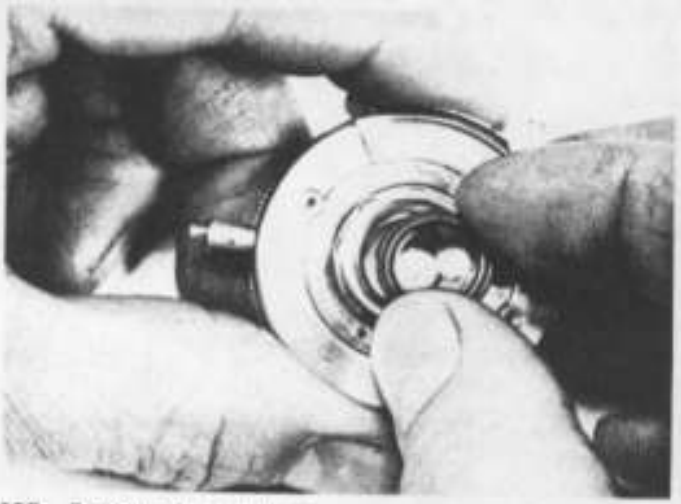
KODAK SYNCHRO 300 SHUTTER

Disassembly



125. Remove the shutter locating screw.

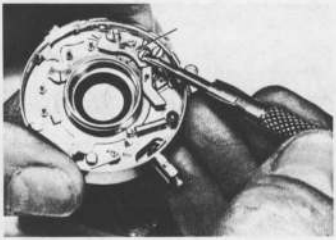


127. Remove the rear lens.

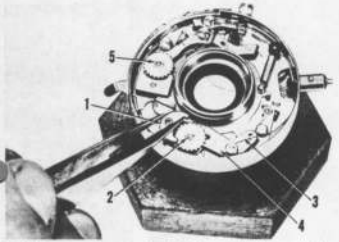
126. Remove the rear lens clamping ring using tool No. 280 in tool No. 751 handle (formerly tool No. 226A).

128. Remove the front lens assembly using tool No. 757 (formerly tool No. 514A1).

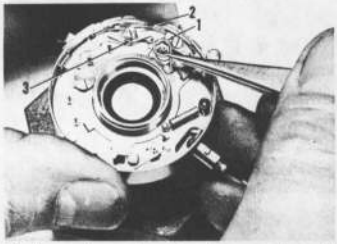
129. Remove the speed actuating ring (arrow 1) and the speed control ring (arrow 2).



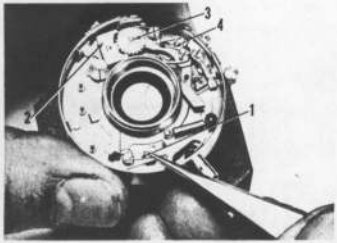
132. Remove the synchro sector screw (arrow) and the synchro sector.



130. Remove the retard pallet (arrow 1), the star wheel (arrow 2), the retard sector spring (arrow 3) and the retard sector (arrow 4).

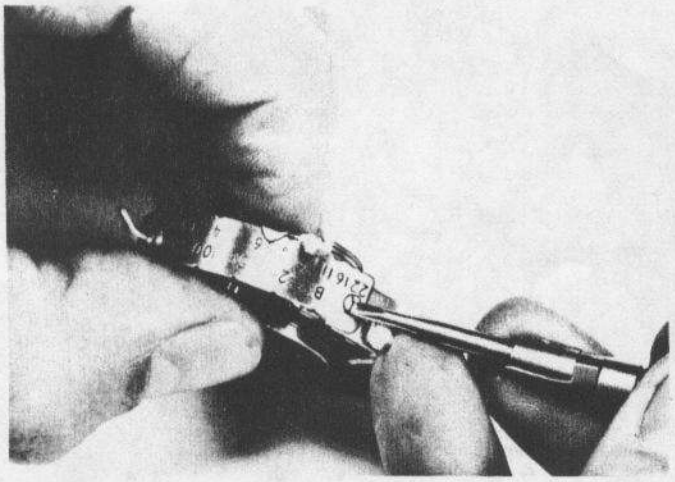


133. Remove the synchro sector drive spring (arrow 1), the trigger spring (arrow 2), and the trigger latch spring (arrow 3).

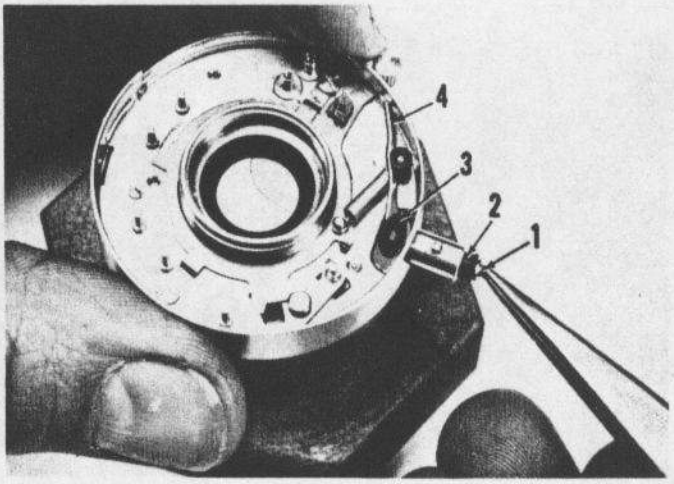


131. Remove the blade latch spring (arrow 1), the synchro pallet (arrow 2), the star wheel (arrow 3), and the synchro sector return spring (arrow 4).

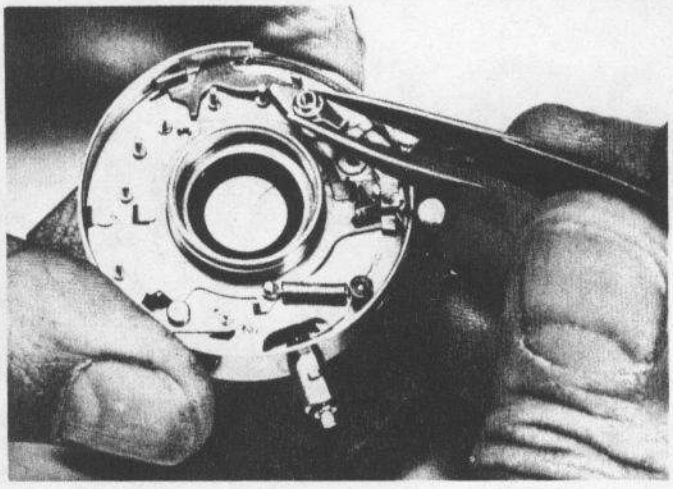
134. Remove the trigger screw (arrow 1), and the trigger guide screw (arrow 2).



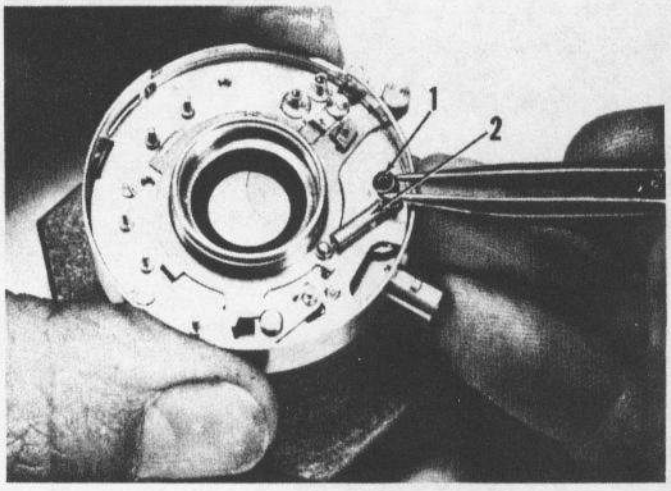
135. Remove the speed and diaphragm plate screws and plate.



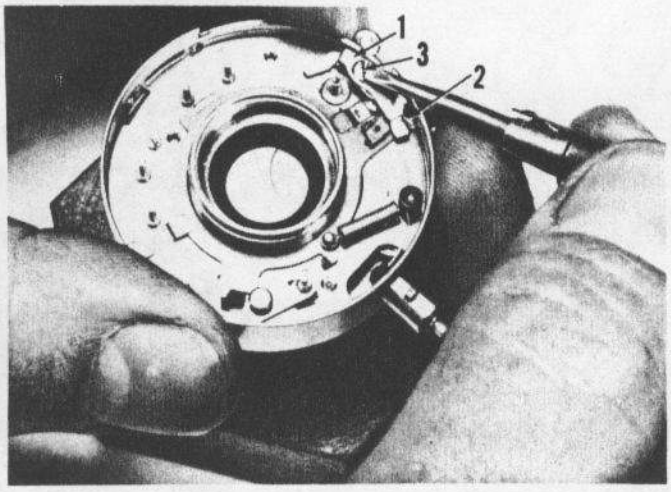
138. Remove the inner terminal nut, the inner terminal (arrow 1), the insulator sleeve (arrow 2), the insulating washer (arrow 3), and the contact strap (arrow 4).



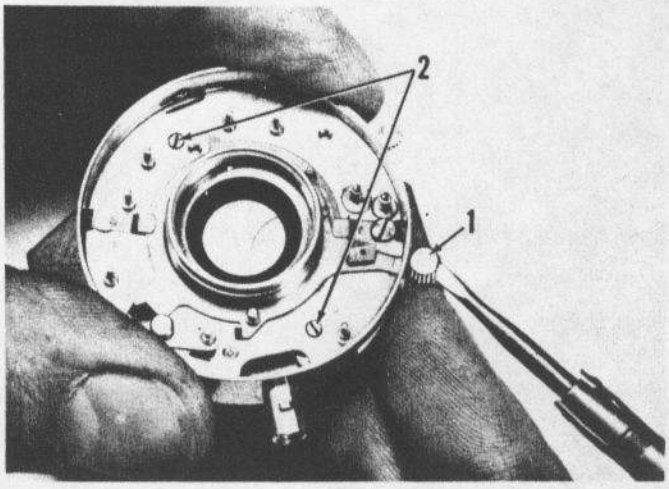
136. Lift out the trigger assembly.



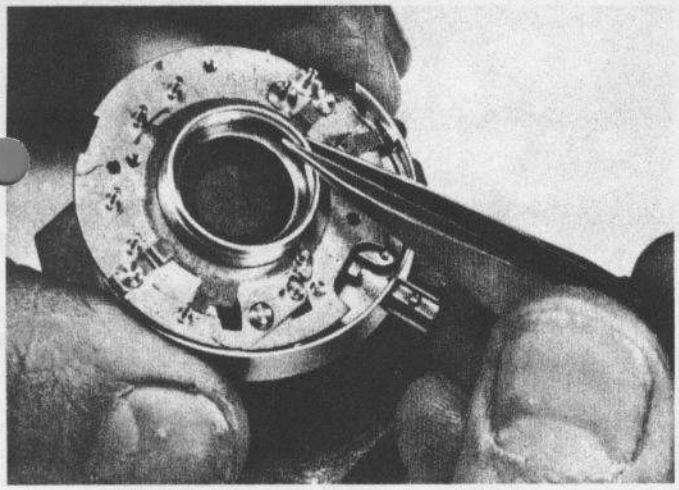
139. Remove the contact strap insulator sleeve (arrow 1) and the main drive spring (arrow 2).



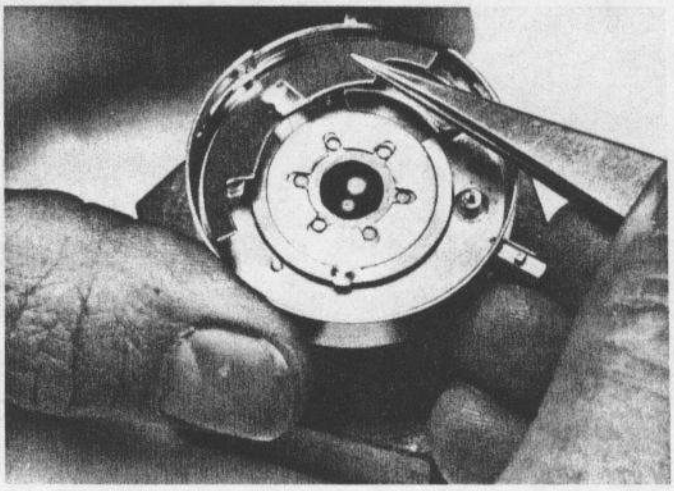
137. Remove the bulb lever (arrow 1) and bulb lever spring (arrow 2) by removing the bulb lever screw (arrow 3).



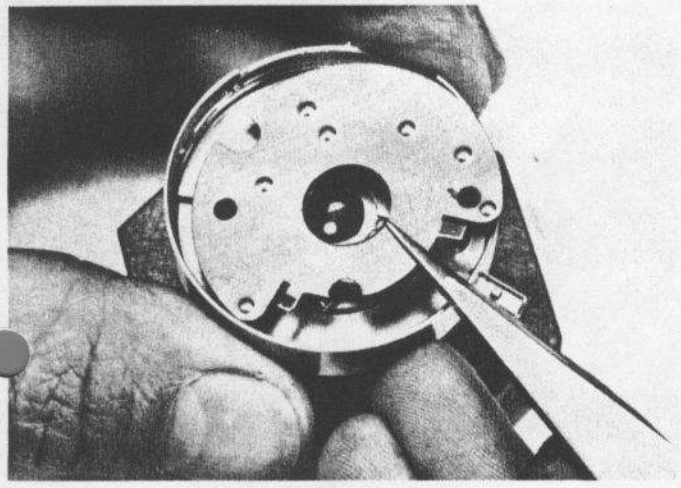
140. Remove the setting lever button (arrow 1) and the two-mechanism screws (arrow 2).



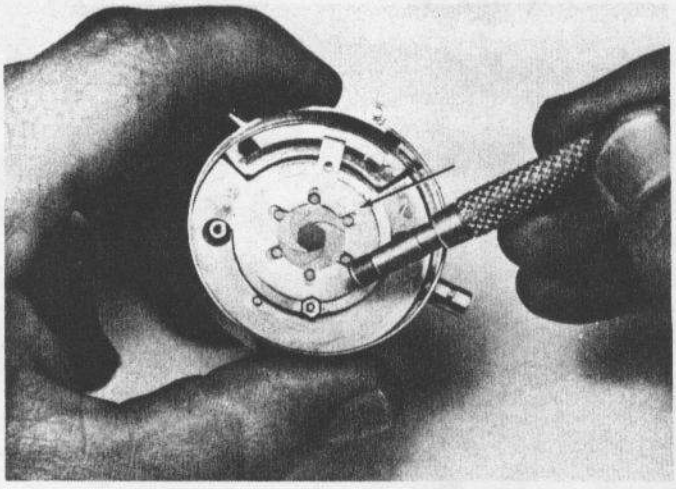
141. Remove the mechanism plate assembly and the drive ring assembly.



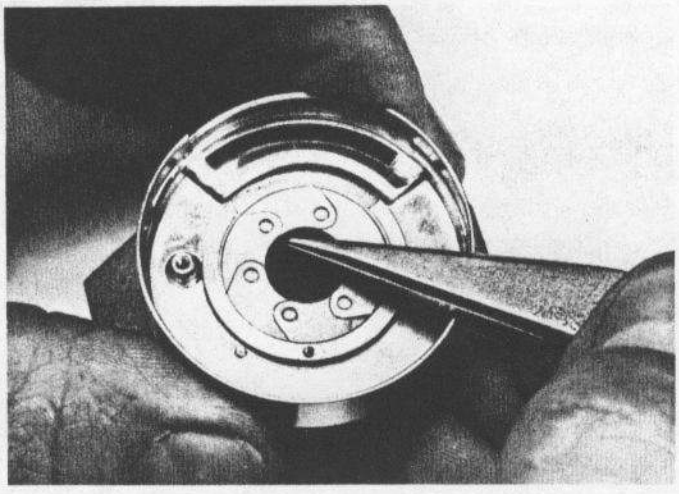
143. Remove the light guard.



142. Remove the diaphragm retainer plate.



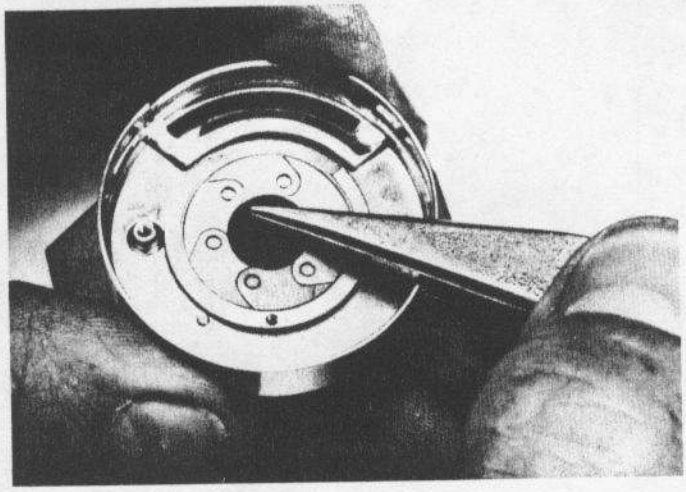
144. Remove the diaphragm pointer screw and the diaphragm pointer (arrow) using tool No. 611.



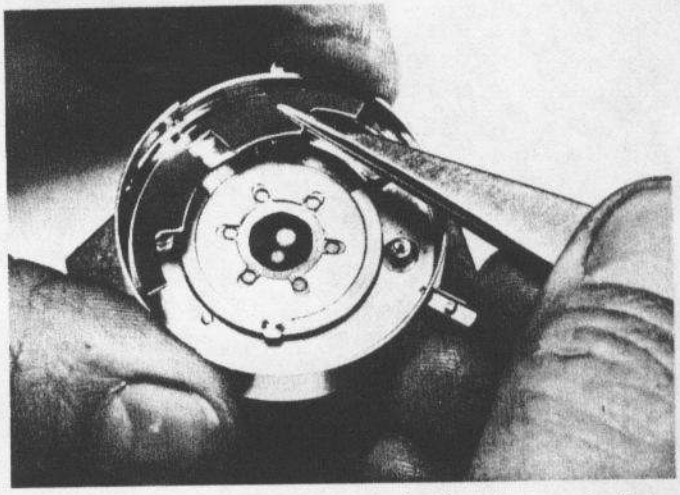
145. Remove the diaphragm wings.

KODAK SYNCHRO 300 SHUTTER

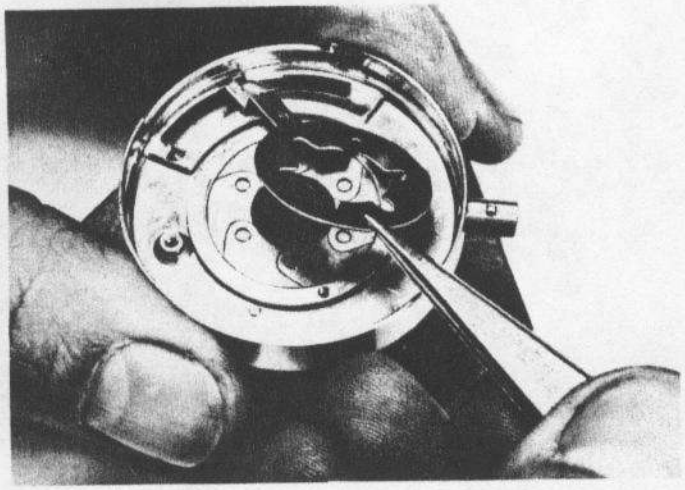
Reassembly and Adjustment



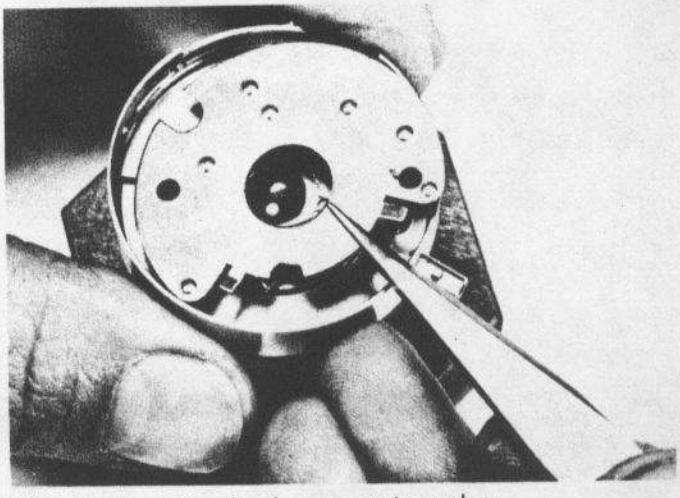
146. Replace the diaphragm wings.



148. Replace the lightguard with the short end of the lightguard toward the terminal post.

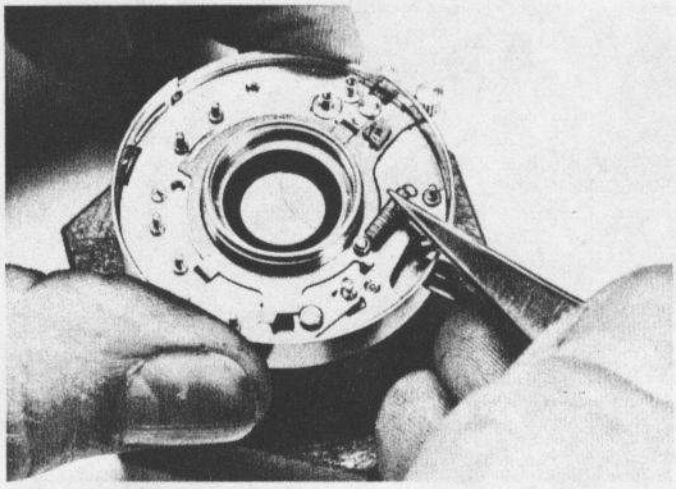


147. Replace the diaphragm pointer and pointer screw.

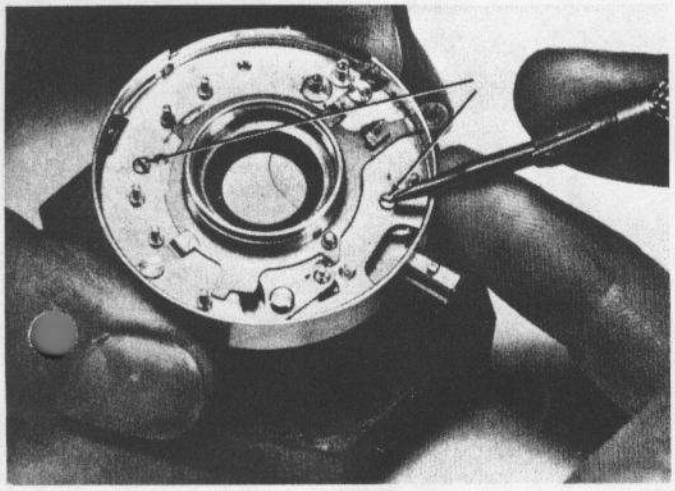


149. Replace the diaphragm retainer plate.

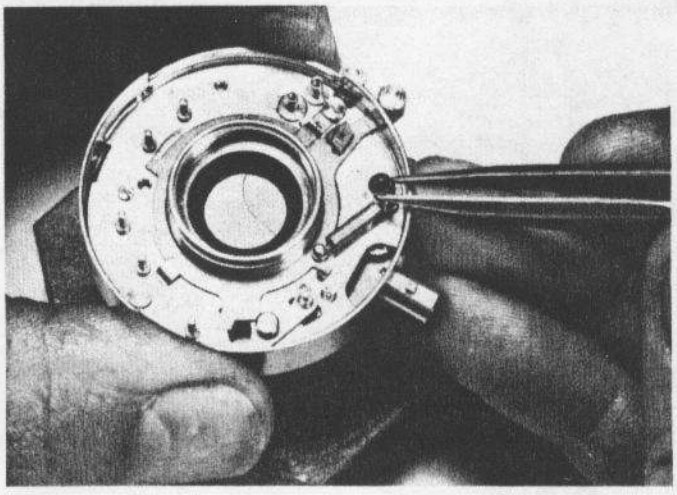
150. Replace the mechanism plate assembly and the drive ring assembly.



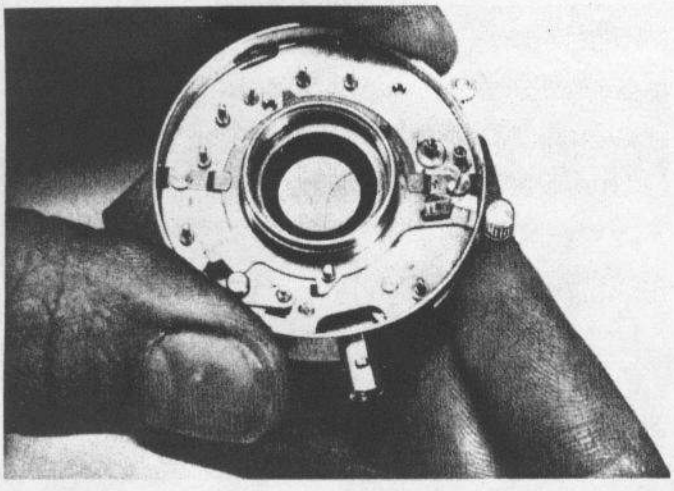
153. Attach the main drive spring to the drive ring stud and the mechanism plate stud.



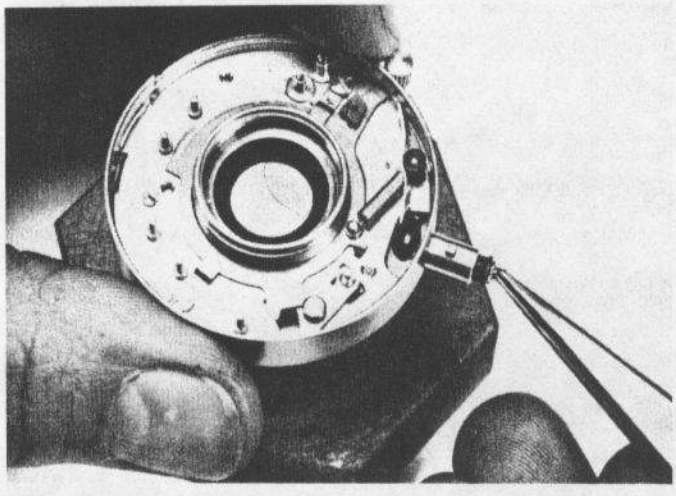
151. Replace the two mechanism plate screws (arrows).



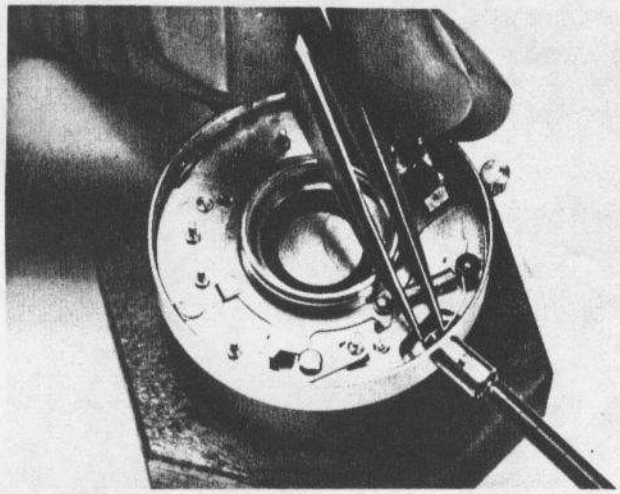
154. Replace the contact strap insulator sleeve.



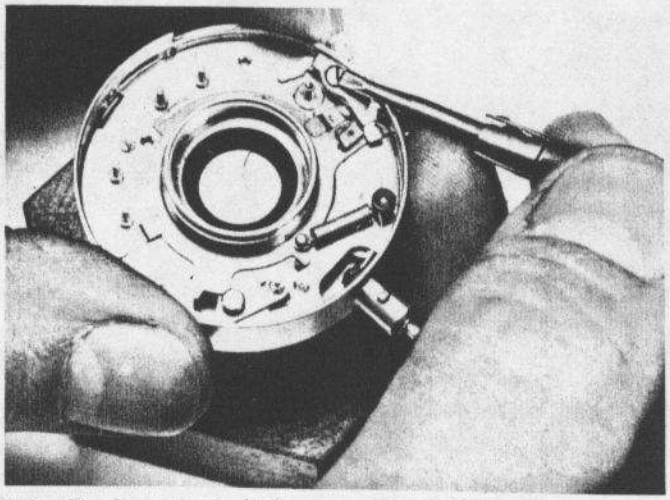
152. Replace the setting lever button on the drive ring assembly (rivet in place).



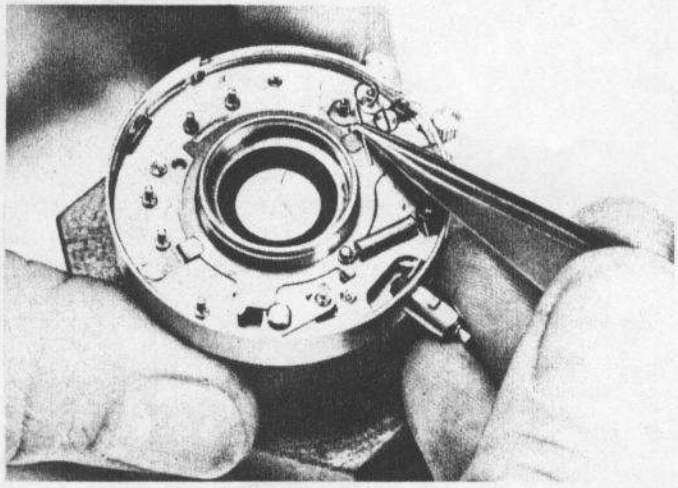
155. Replace the insulator sleeve, terminal, and the insulating washer. Place the contact strap against the insulator sleeve.



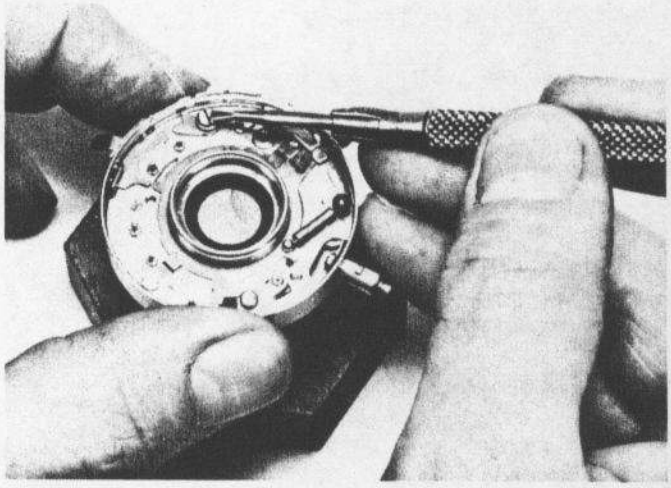
156. Replace the terminal nut. Use tool No. 657 to hold the inner terminal.



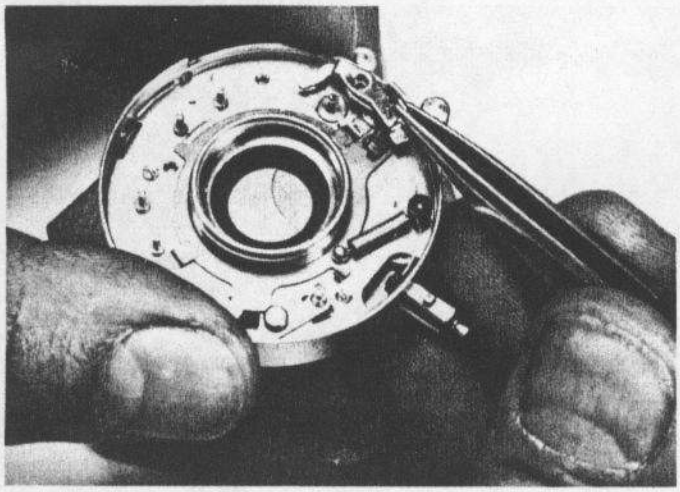
159. Replace the bulb lever screw.



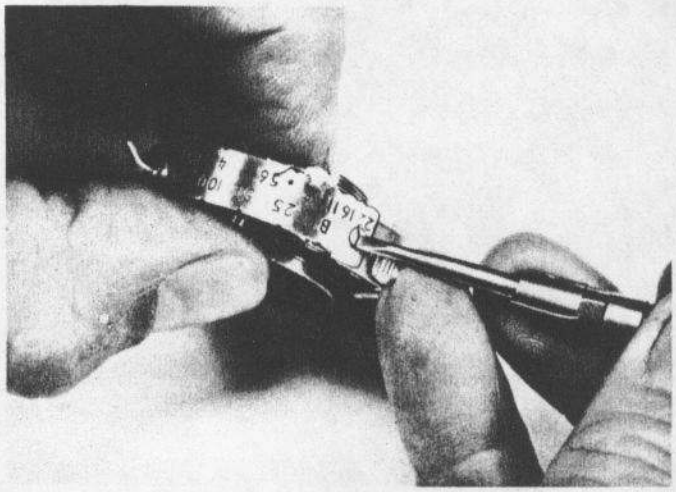
157. Place the bulb lever spring on the bulb lever post with the short end against the case.



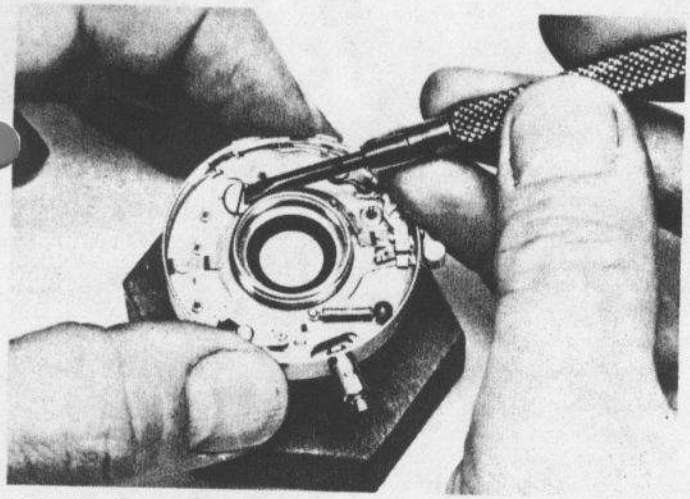
160. Replace the trigger assembly and trigger assembly screw.



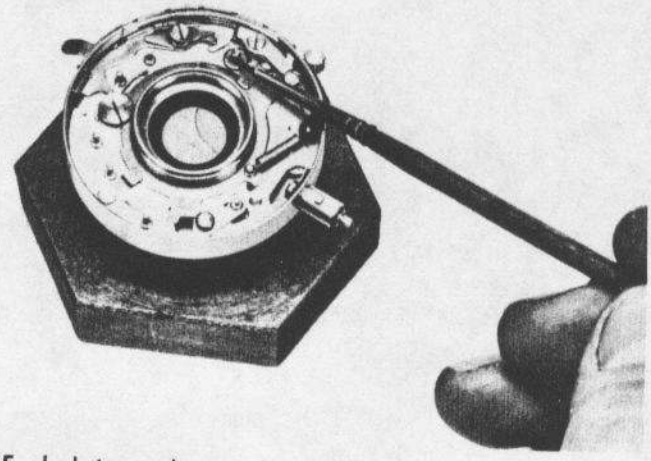
158. Place the bulb lever on the bulb lever post. Then put the long end of the bulb lever spring against the groove in the lever.



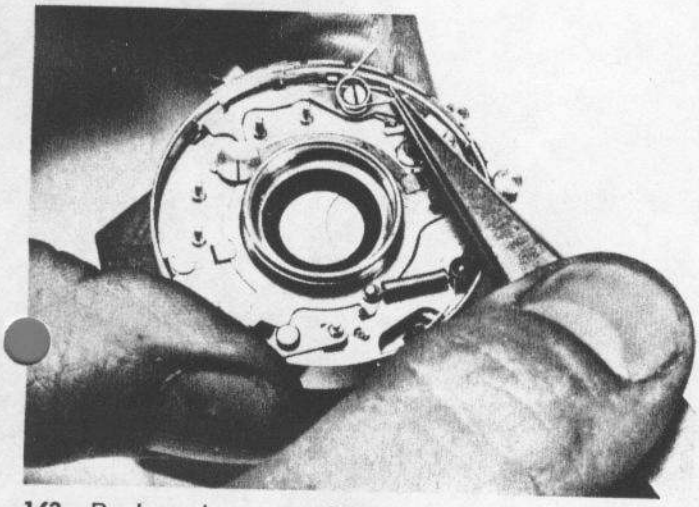
161. Replace the speed and diaphragm plate and plate screws.



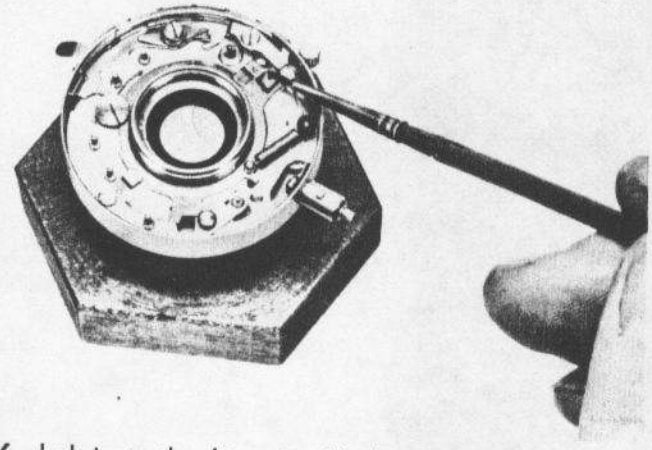
162. Replace the trigger guide screw.



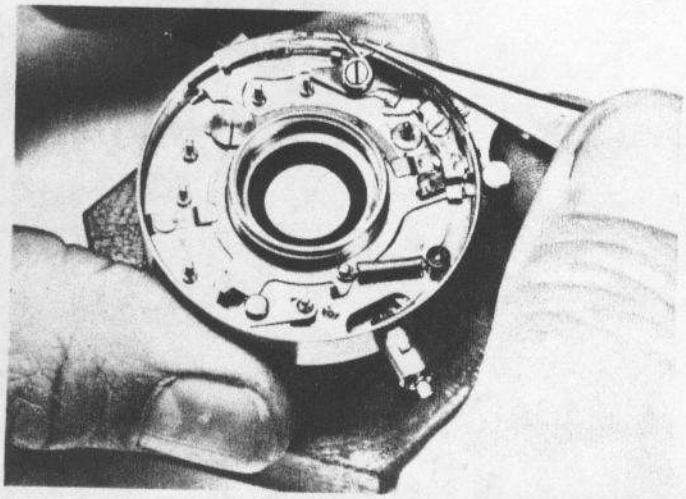
165. Lubricate the synchro sector stud.



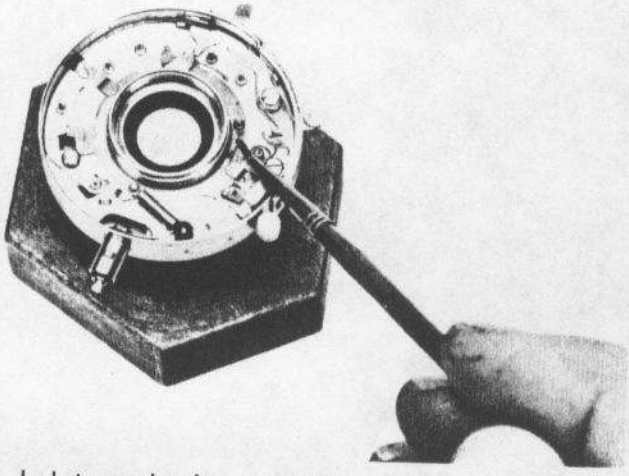
163. Replace the trigger latch spring, with the short end of the spring against the case and the other end of the spring against the latch.



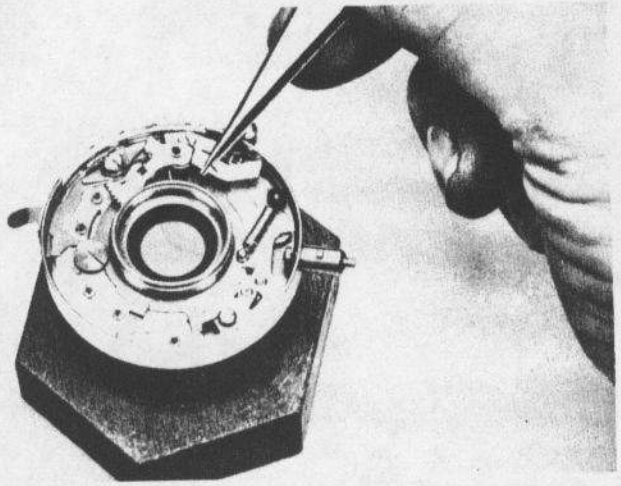
166. Lubricate the drive ring block.



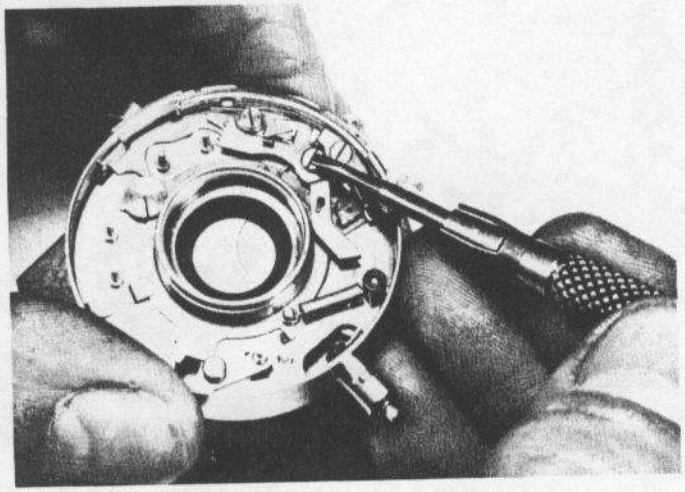
164. Replace the trigger spring, with the short end of the spring against the trigger lug and the long end of the spring against the case.



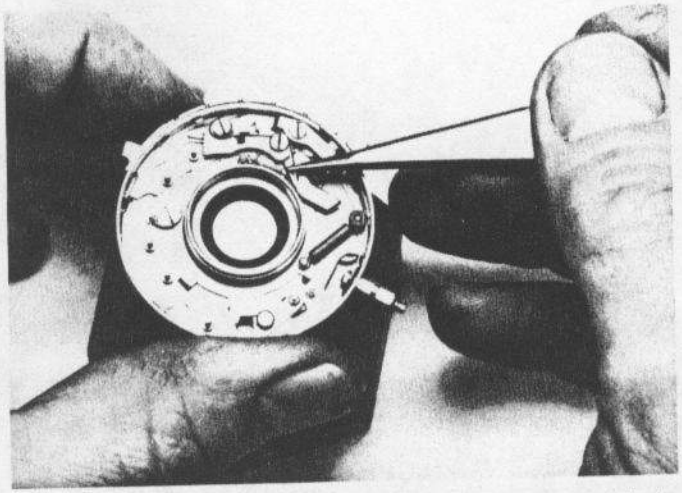
167. Lubricate the drive ring stud.



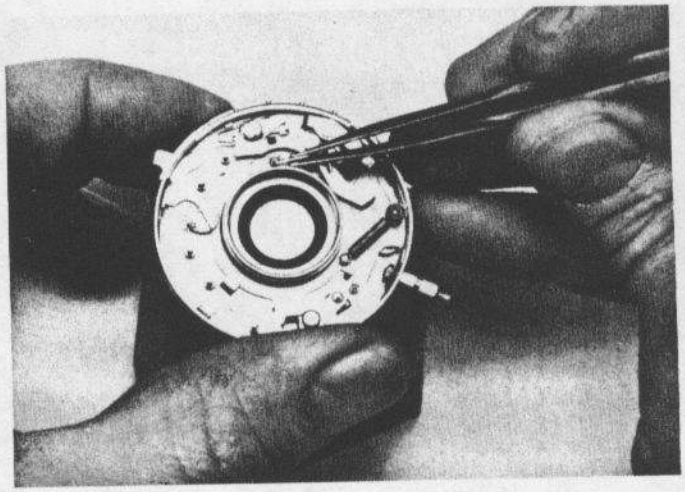
168. Place the synchro sector on top of the synchro sector drive spring with the offset end of the spring in the small sector hole. Hold the sector and spring together and place them on the synchro stud.



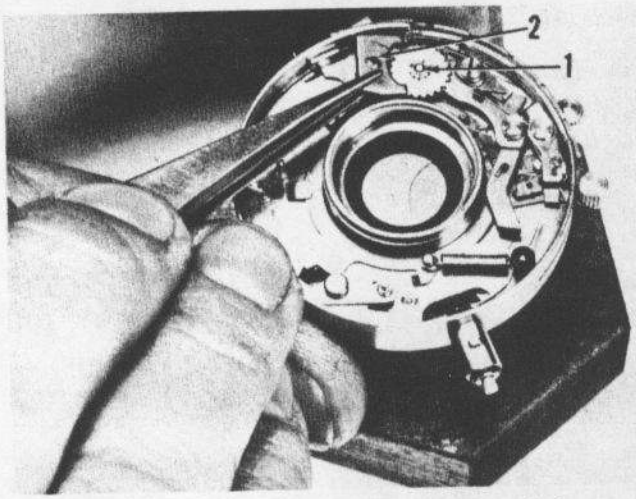
169. Replace the synchro sector screw.



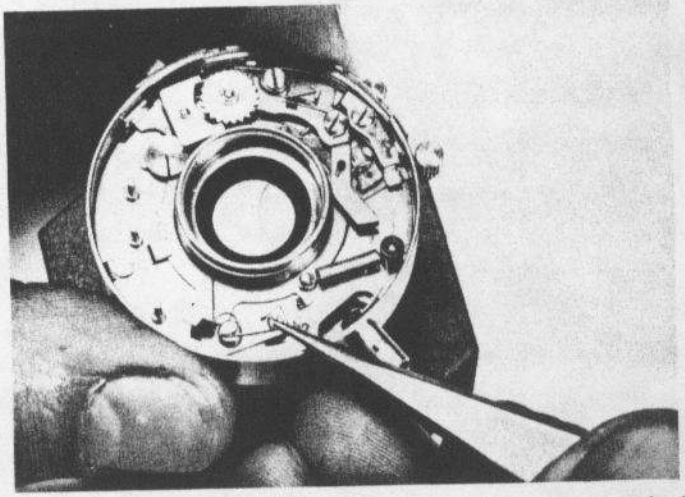
170. Replace the synchro sector return spring with the short end of the spring against the sector lug.



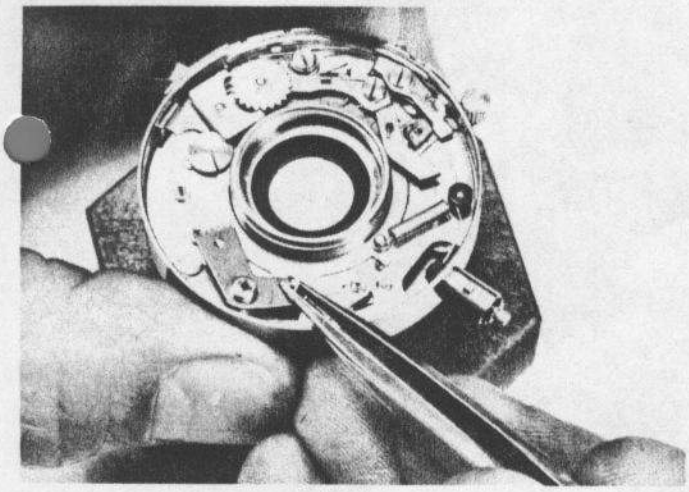
171. Place the other end of the synchro sector return spring against the lens tube in the groove provided.



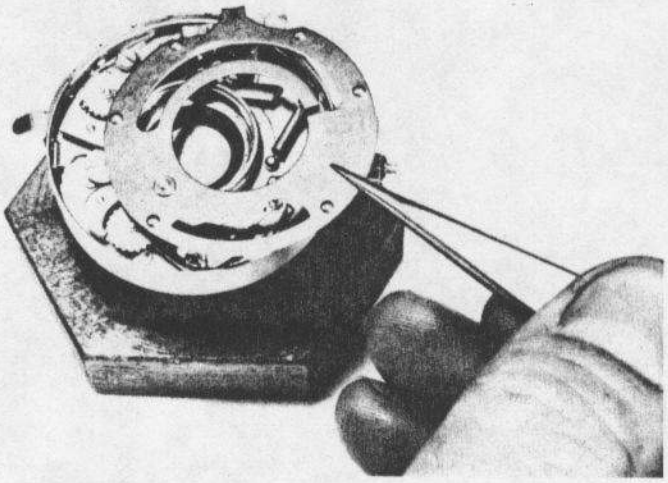
172. Replace the star wheel (arrow 1), and the synchro pallet (arrow 2).



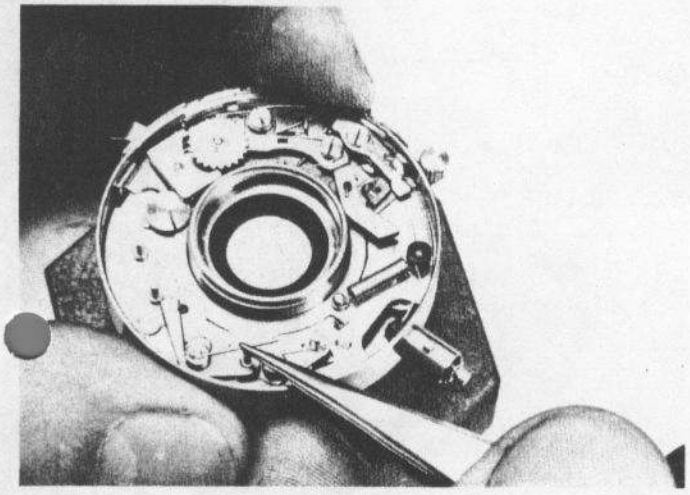
173. Replace the blade latch spring with the long end of the spring against the case and the short end against the blade latch stud.



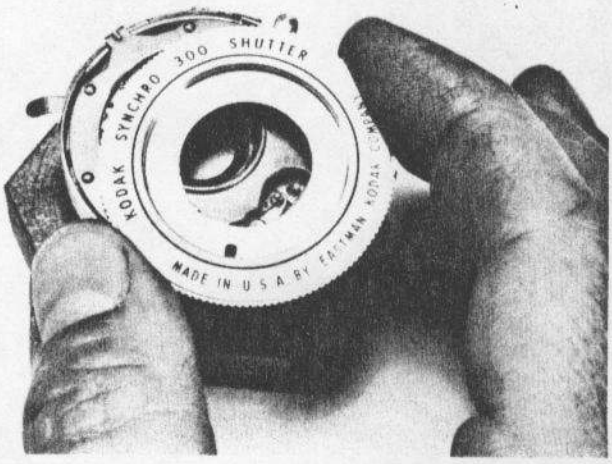
174. Replace the retard sector.



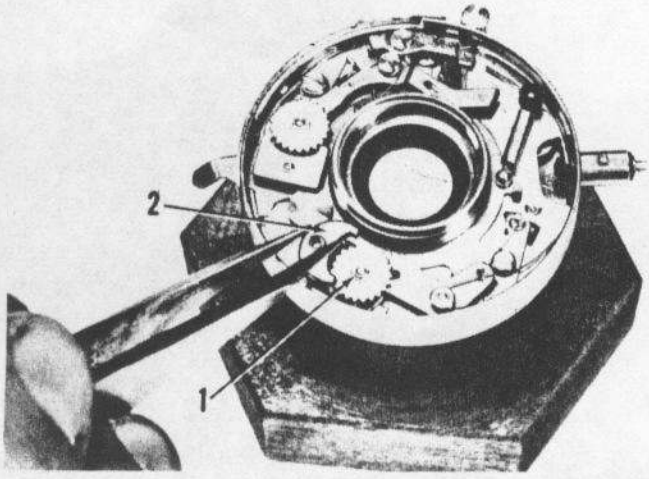
177. Replace the speed control ring.



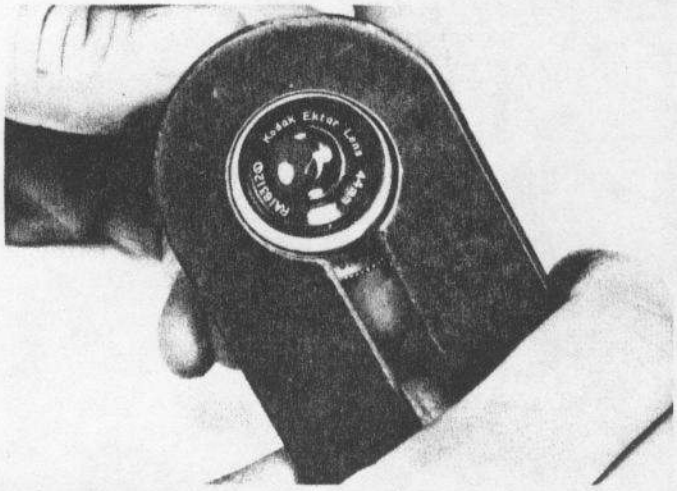
175. Replace the retard sector spring with the long end of the spring against the case and the short end of the spring against the sector stud.



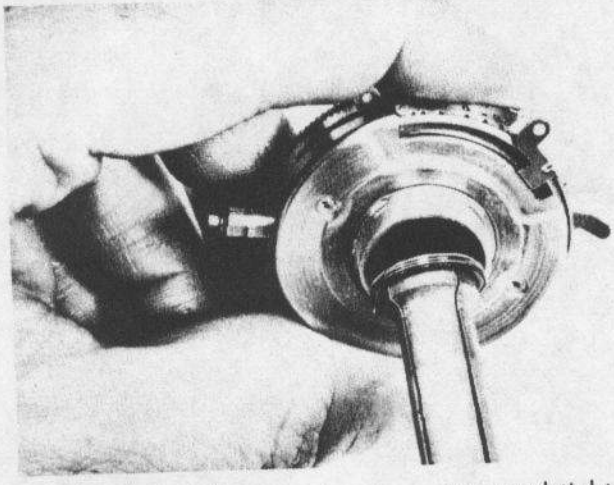
178. Replace the speed actuating ring. See Instruction No. 184.



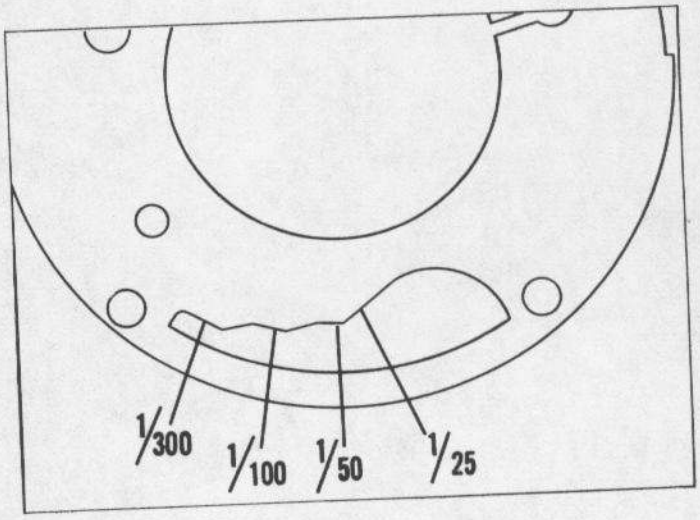
176. Replace the star wheel (arrow 1), and the retard pallet (arrow 2).



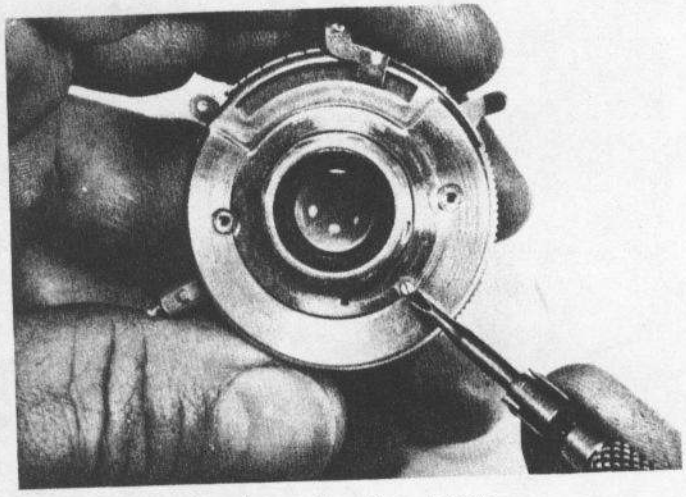
179. Replace the front lens. Place the rear lens in position.



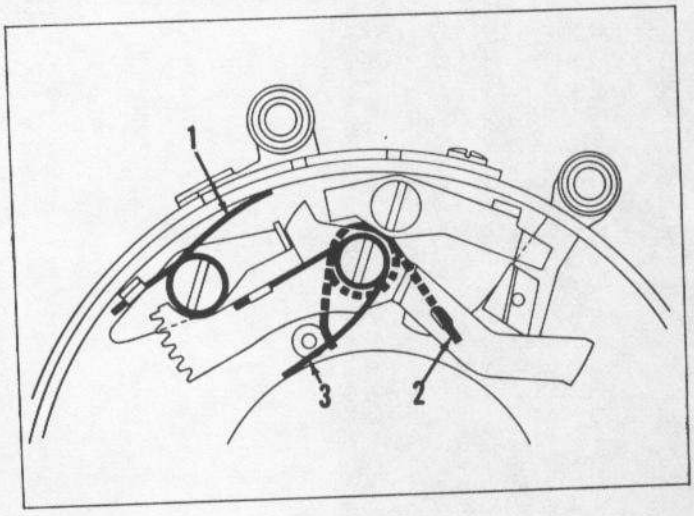
180. Place the clamping ring in position and tighten the ring using tool No. 751 (formerly tool No. 226A) and tool No. 280.



183.



181. Replace the shutter locating screw.



184.

182. Adjusting Speed Actuating Ring
If the actuating ring binds, loosen it by forming the ring slightly with tool No. 758 (formerly tool No. 514B1) and tool No. 759 (formerly tool No. 514B2). Place the ring on the die, engraved side *up*, insert the punch and strike lightly. To tighten the ring, place it on the die with the other side up.

183. Adjusting Speed Control Ring
To adjust the shutter speeds, file or swedge the speed control ring at the proper point. Filing slows the speeds while swedging increases the speeds.

184. Position of springs in shutter
1. Trigger spring
2. Synchro sector drive spring
3. Synchro sector spring

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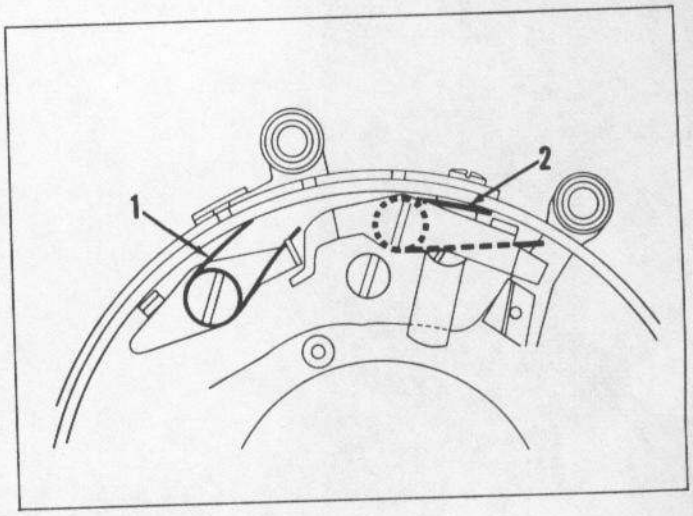
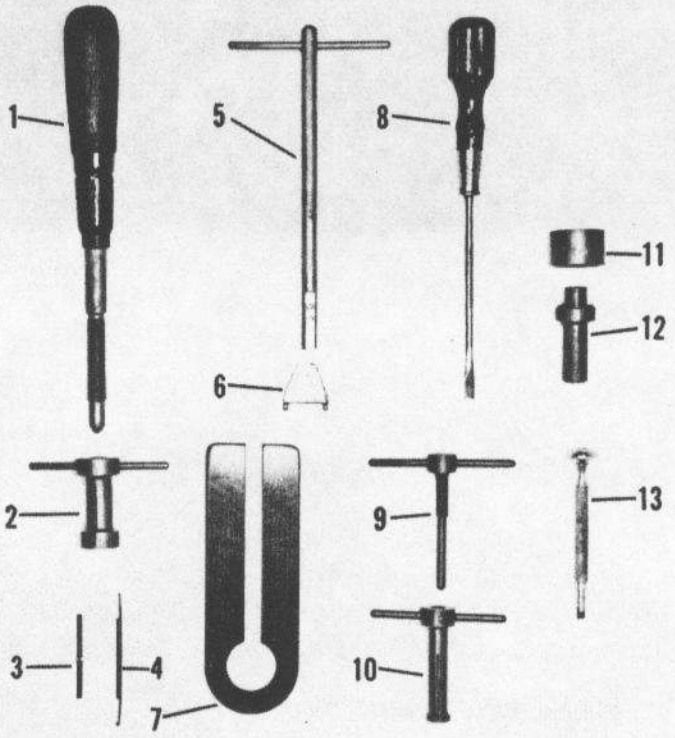
1. Trigger latch spring
2. Bulb lever spring



184.

185. If either the shutter case or mechanism plate assembly needs replacement, the complete shutter must be returned to Rochester, New York for repair.

186. If either the front or rear lens assembly in the Kodak Synchro 300 Shutter needs replacement, it is necessary to install a matched set of both assemblies. Use No. 802260 matched set, front and rear lens assemblies, which can be ordered from Repair Parts Service. Please return all replaced lens assemblies to Repair Parts Service.



187. Special Tools

Index No.	Tool No.	Formerly No.	Name
1	84		Handle for Expanding lens wrench
2	579	311A	Expanding lens wrench (front element)
3	657		Two prong spanner wrench
4	598	501C	Special offset screwdriver
5	650		Handle for retaining collar spanner wrench
6	756	650W	Retaining collar spanner wrench
7	757	514A1	Contracting wrench
8	760	514E	Lug adjusting tool
9	751	226A	Handle for expanding lens wrench
10	280		Expanding lens wrench (rear element)
11	758	514B1	Speed ring forming die
12	759	514B2	Speed ring forming punch
13	611		Hexagonal wrench for diaphragm pointer screw

EASTMAN KODAK COMPANY · Rochester 4, N. Y.

9-53-GLP-B

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Kodak Service Bulletin

EASTMAN KODAK COMPANY ... APPARATUS SERVICE ... ROCHESTER 4, NEW YORK

768357

NOVEMBER 1962

KODAK SIGNET 35 CAMERA
with
KODAK SYNCHRO (M-DELAY) 300 SHUTTER

Conversion to X Synchronization

The following procedures are recommended when conversion to X synchronization is:

1. Requested by the owner or if trouble is encountered in the M-delay mechanism - section A.
2. Required due to severe damage to blades or to M-delay mechanism plate - section B.

A. CONVERTING M-DELAY MECHANISM PLATES TO X SYNCHRONIZATION

Part required

1 - 124090 Flash contact spring

Note: Later versions of the M-delay shutters have this spring fitted at time of manufacture.

Remove and hold for reassembly

1. Front lens combination
2. Speed actuating ring (122501)
3. Speed control ring (122506)
4. Terminal nut (94317)

Note: Not necessary to remove nut if contact 124090 is in place.

Remove and discard

1. 122497 Contact strip

Note: If flash contact spring 124090 is in place, shorten contact strip 122497 by cutting next to the insulator bushing. Be sure strip is retained by bushing and that no contact is possible at sector or case.

2. 122503 Flash retard star wheel and pinion
3. 123155 Flash retard pallet

Reassembly

1. Fit flash contact spring 124090 and adjust to make contact just as the shutter blades clear the f/4 diaphragm aperture. Tighten terminal nut securely and seal to ensure clamping action. Contact efficiency should be at least 75%.
2. Remove speed and diaphragm index plate, and identify the shutter by stamping an "X" on the plate just to the right of the f/3.5 designation.
3. Reassemble balance of shutter.

The accurate adjustment of the contact spring will now synchronize F and M lamps and electronic flash if the shutter speeds are controlled as follows:

Class F Lamps (SM or SF)	-	1/50 or 1/25 second
Class M Lamps (5, 8, AG1, M2, M3, M5)	-	1/25 second
Electronic Flash (Strobe Units)	-	all shutter speeds

A tag (AO1412) covering this flash information may be ordered from Eastman Kodak Company, Apparatus Service Department, Rochester 4, New York, for attachment to the camera.

(OVER)

PRINTED IN UNITED STATES OF AMERICA

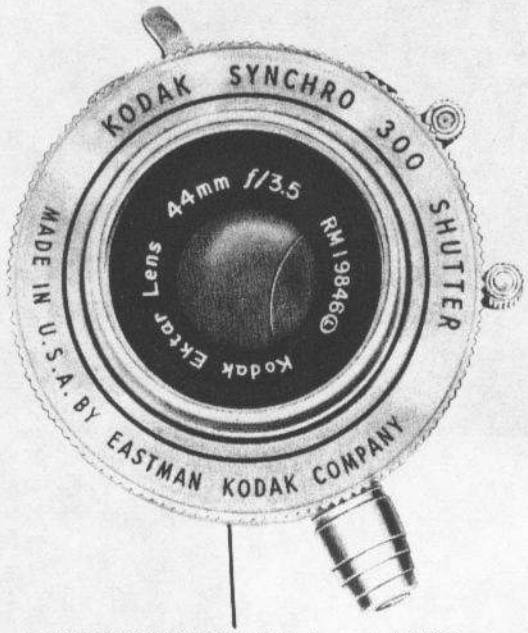
B. FITTING NEW MECHANISM PLATE

The mechanism plate (116318) for the M-Delay shutter of the Kodak Signet 35 Camera is no longer available. Since the mechanism plate (133272) of the MFX shutter (used on later models of Signet 35) is considered less troublesome and also allows the use of the more varied present day flash equipment and lamps, it has been decided that any M-Delay shutter requiring a new mechanism plate will be converted to X synchronization.

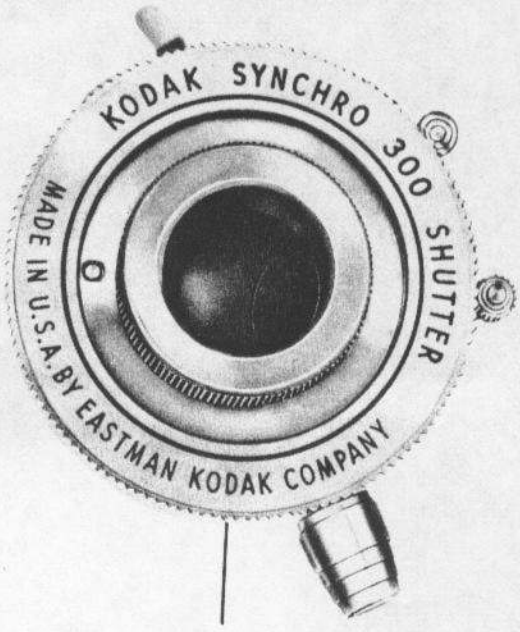
A kit for the conversion can be ordered in the usual manner from Apparatus Parts Service as:

KIT No. 1956 - MFX Conversion Kit for M-Delay Shutter of Kodak Signet 35 Camera

The kit contains all necessary parts, installation instructions and a flash information tag which should be attached to the camera for the owner's information.



SHUTTER COMPLETE (with lenses)–122509



SHUTTER COMPLETE (without lenses)–122508

Figure 24

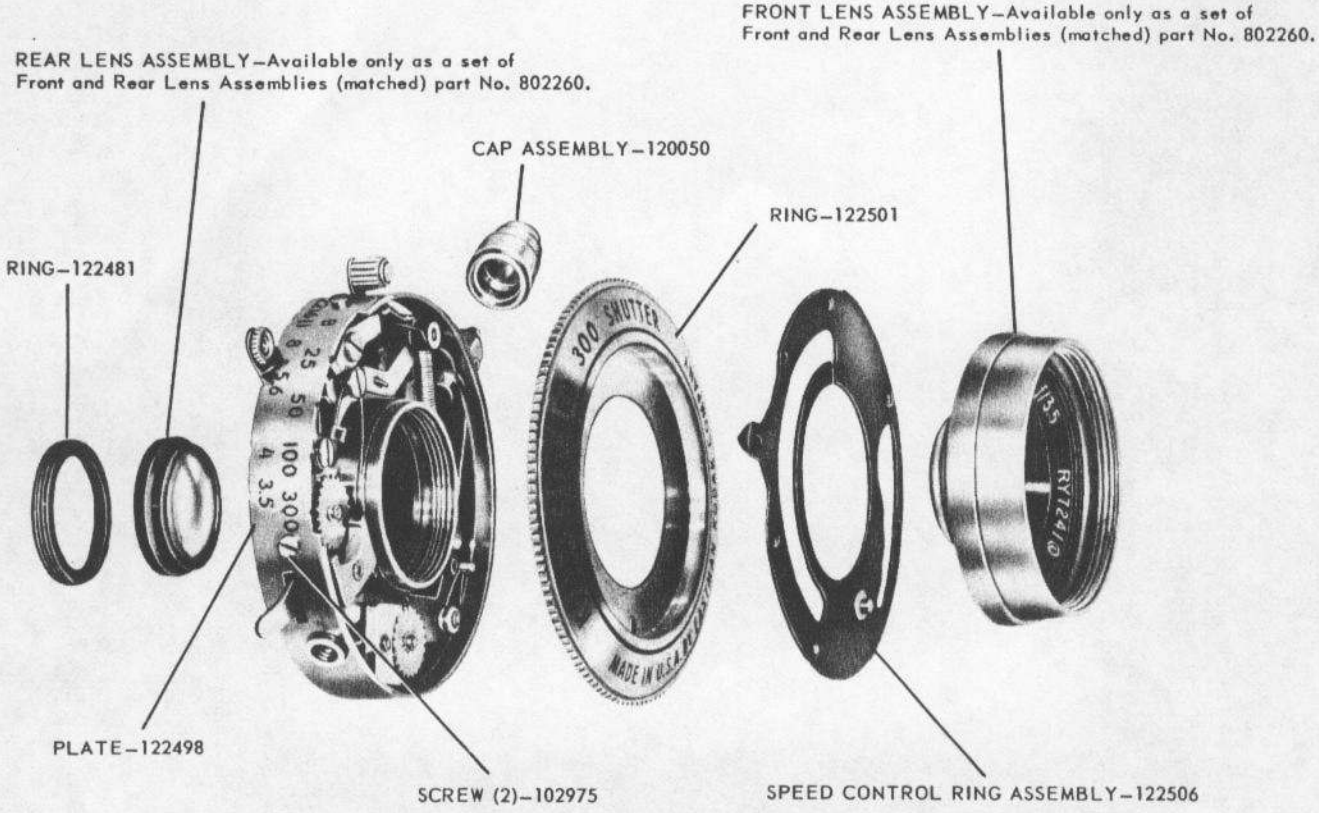

REAR LENS ASSEMBLY–Available only as a set of Front and Rear Lens Assemblies (matched) part No. 802260.
FRONT LENS ASSEMBLY–Available only as a set of Front and Rear Lens Assemblies (matched) part No. 802260.
CAP ASSEMBLY–120050
RING–122501
RING–122481
300 SHUTTER
PLATE–122498
SCREW (2)–102975
SPEED CONTROL RING ASSEMBLY–122506

Figure 25

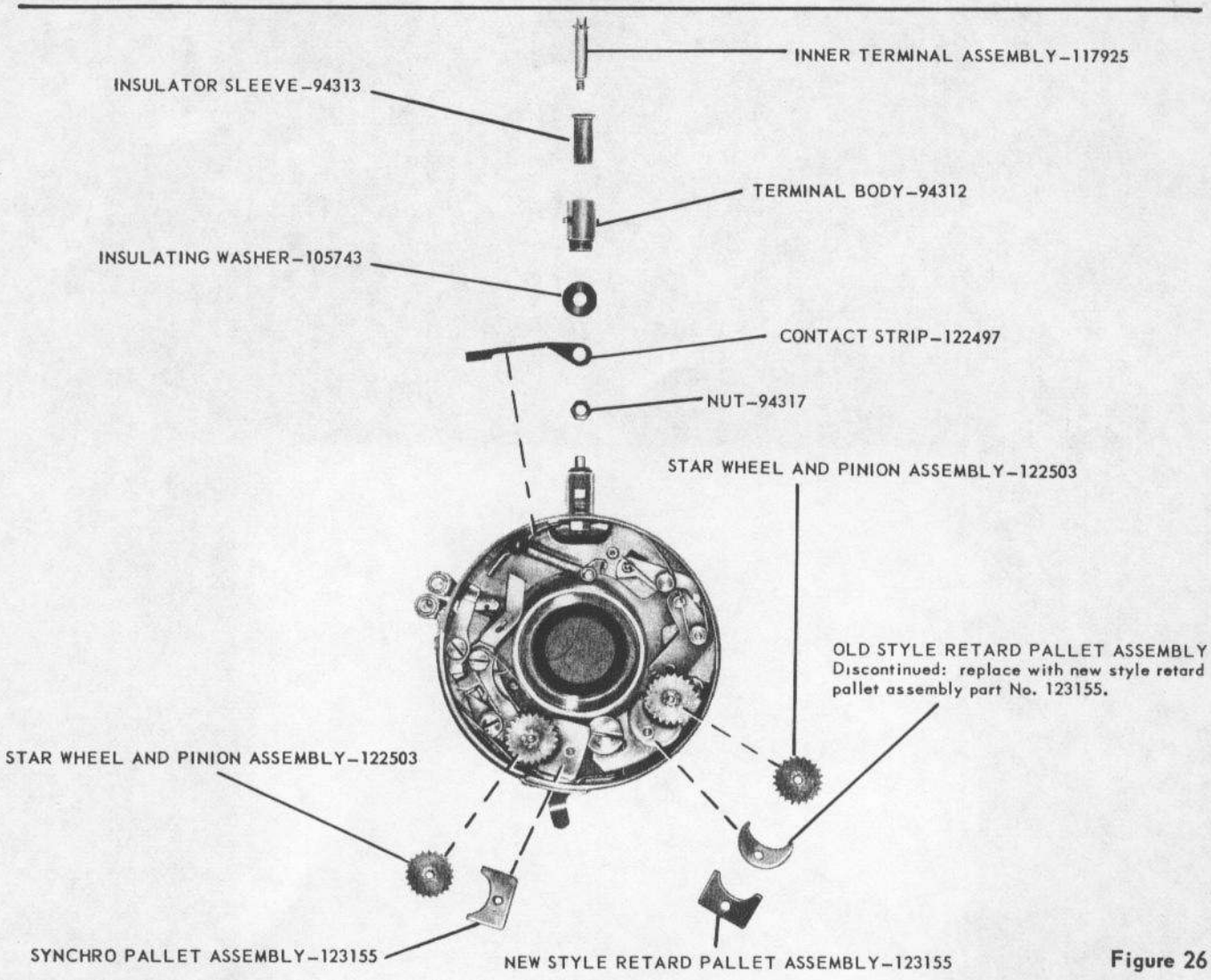


Figure 26

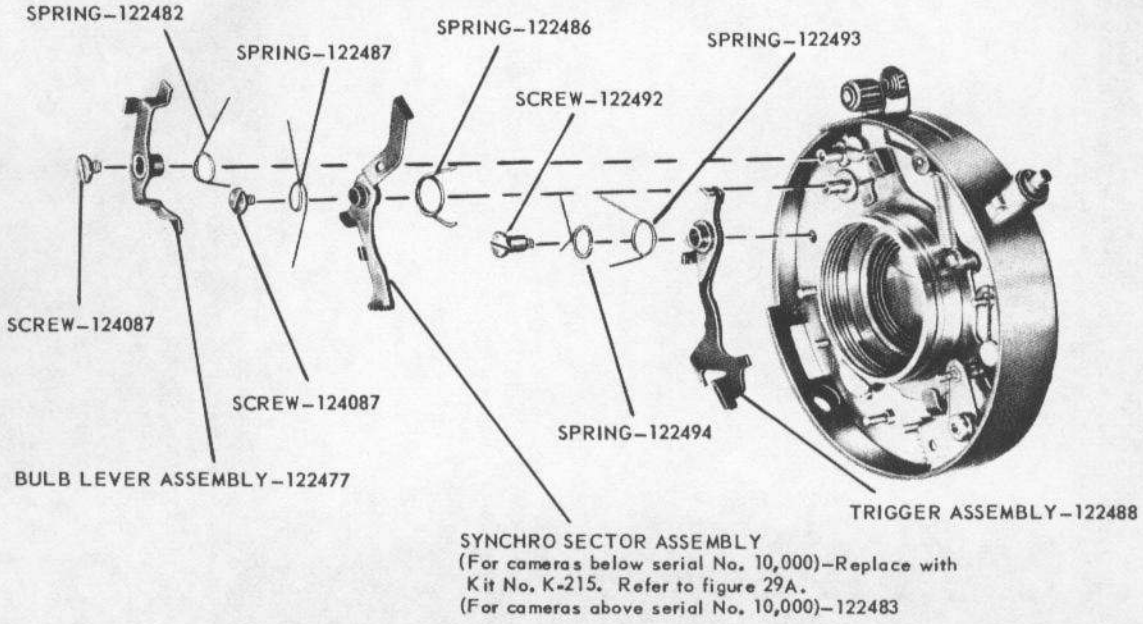


Figure 27

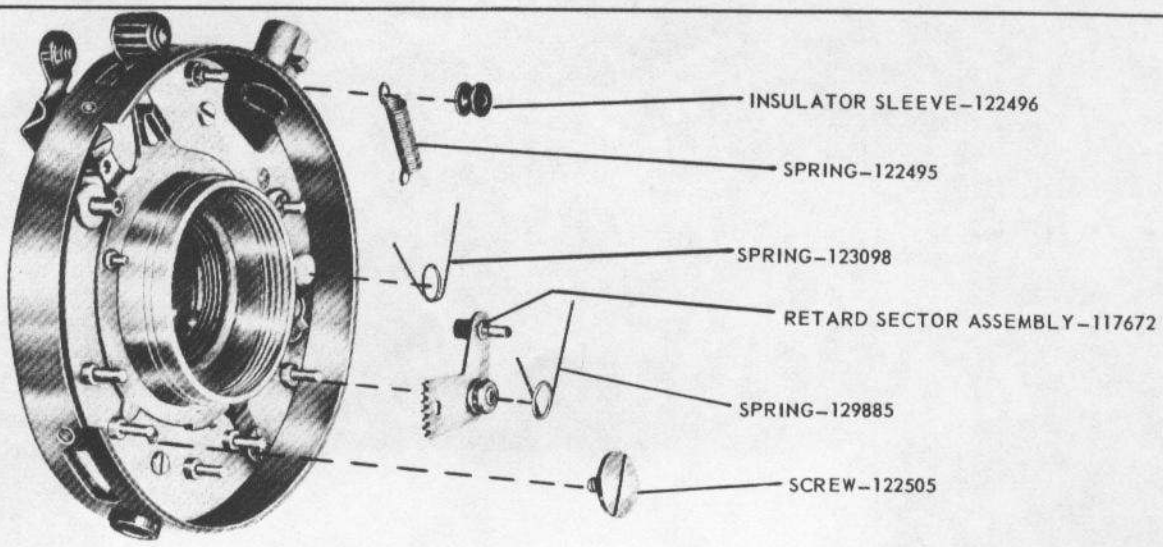


Figure 28

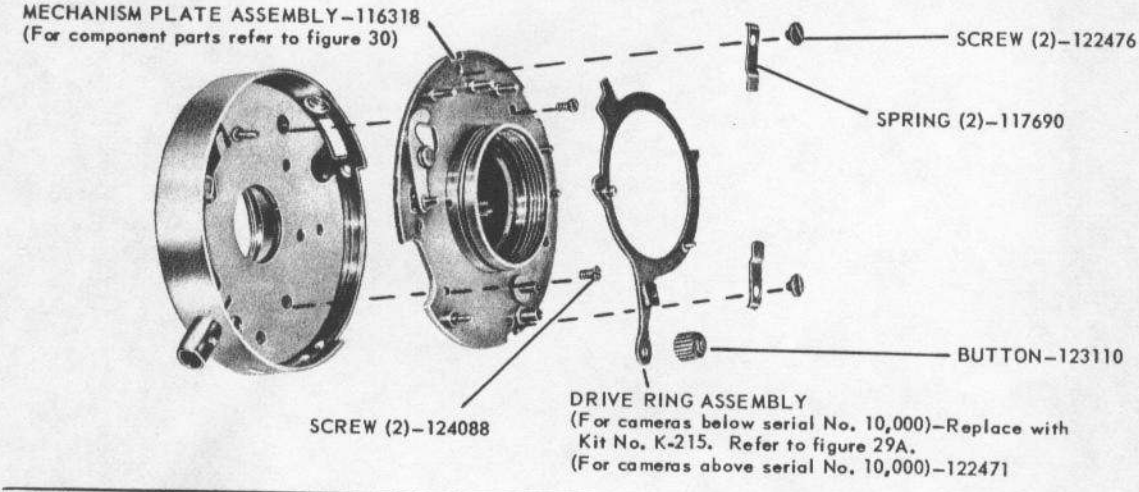
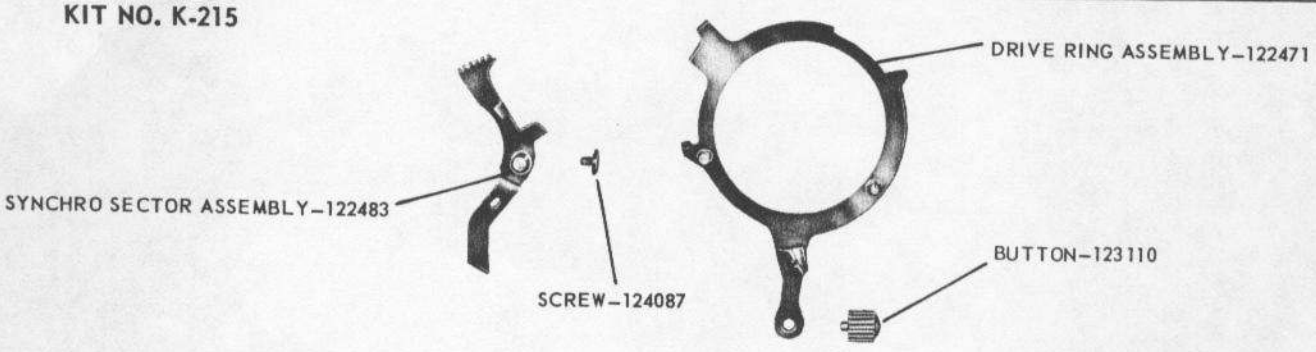

MECHANISM PLATE ASSEMBLY–116318
(For component parts refer to figure 30)
SCREW (2)–122476
SPRING (2)–117690
BUTTON–123110
SCREW (2)–124088
DRIVE RING ASSEMBLY
(For cameras below serial No. 10,000)–Replace with Kit No. K-215. Refer to figure 29A.
(For cameras above serial No. 10,000)–122471

Figure 29

KIT NO. K-215



A design change was made in the drive ring and synchro sector assemblies in the Kodak Synchro 300 shutters for Signet 35 cameras above serial No. 10000. This corrected a tendency for the shutter to "hang" occasionally and fail to release.

The late style parts are not interchangeable singly, therefore the replacement of either part requires the replacement of the entire kit.

To test the shutter for assurance that this difficulty has been corrected, cock the shutter and put a slight helping pressure on the cocking lever in the direction of its release travel while tripping the shutter. It should release in spite of the pressure.

Figure 29A

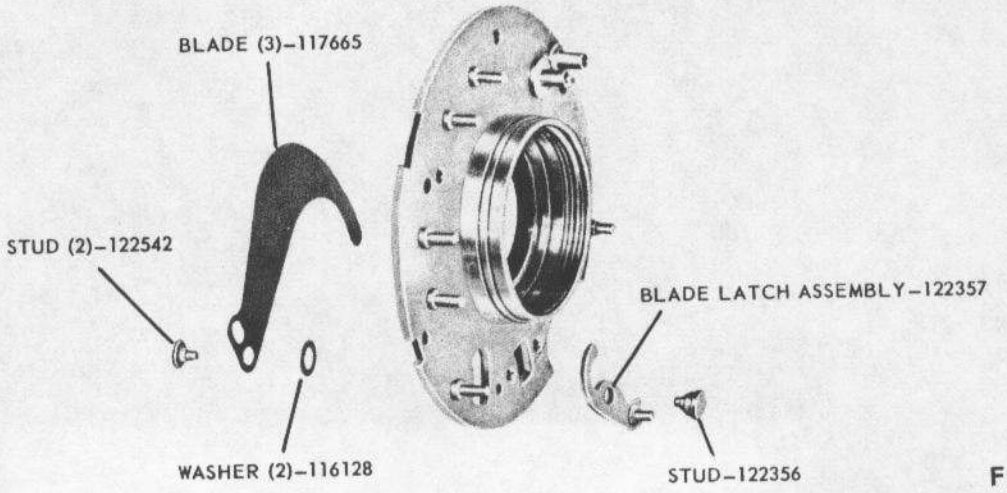


Figure 30

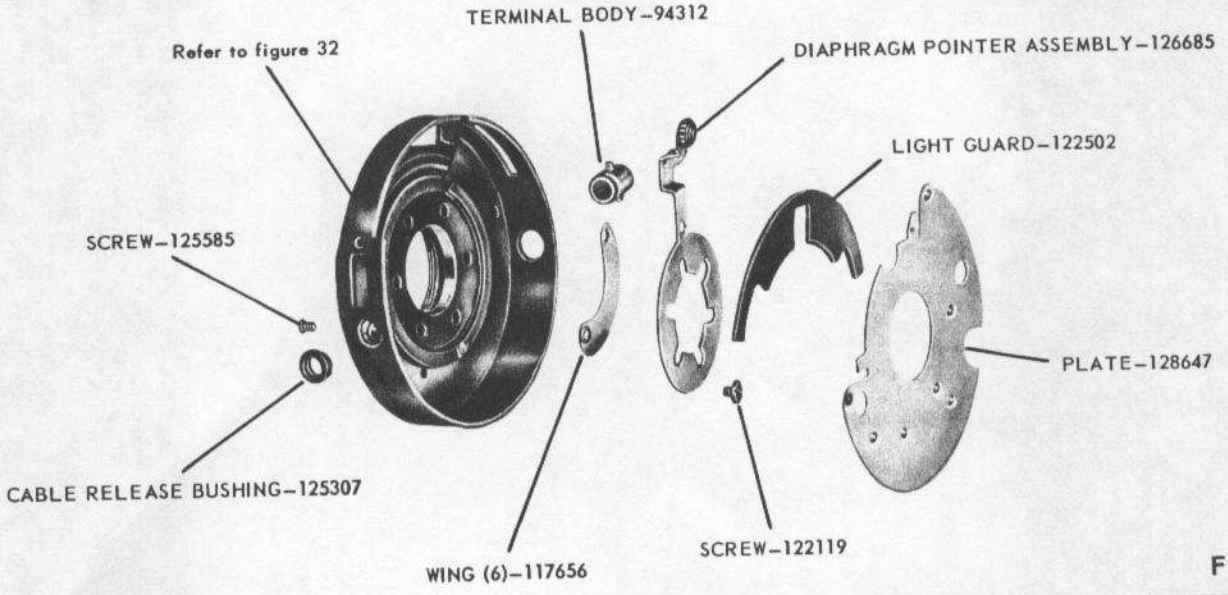


Figure 31

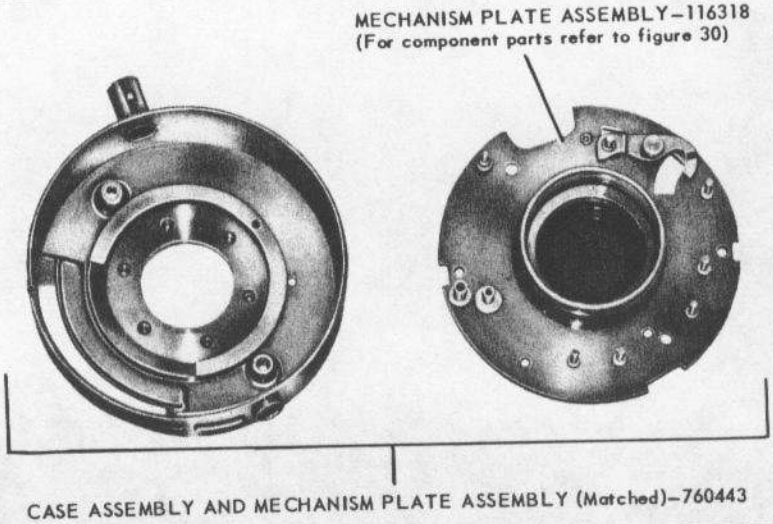

MECHANISM PLATE ASSEMBLY–116318
(For component parts refer to figure 30)
CASE ASSEMBLY AND MECHANISM PLATE ASSEMBLY (Matched)–760443

Figure 32